QC ABSTRACT

NAME OF WORK: Improvements to Roads and Drains at Mariyamma Block and Surrounding Area in Ward No.11 Kuvempunagara.

SL NO	Item Of Work	Name of Test	Frequency of Test/Quantity	Executed Quantity	Number of Tests Required	Number of Tests Conducted
		Materials				
1	Cement	Fineness by dry sieving	One Test		1	1
		Finess by Air permeablity method	One Test		1	1
		Density	One Test		1	1
		Standard Consistency	One Test		1	1
		Initial Setting time	One Test		1	1
		Final Setting time	One Test		1	1
		Soundness (Le Chatelier's Method)	One Test		1	1
		Compressive Strength	One Test		1	1
2	Coarse aggregate(40 mm down size)	SIEVE ANALYSIS	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		Specific Gravity	One Test		1	1
		Bulk Density(Loose)	One Test		1	1
		Bulk Density(Compacted)	One Test		1	1
		Water Absorption	One Test		1	1
3	Coarse aggregate(20 mm down size)	SIEVE ANALYSIS	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		Specific Gravity	One Test		1	1
		Bulk Density(Loose)	One Test		1	1
		Bulk Density(Compacted)	One Test		1	1
		Water Absorption	One Test		1	1
		Aggregate crushing Value	One Test		1	1
		Aggregate Impact Value	One Test		1	1
4	Fine aggregate	SIEVE ANALYSIS	One Test		1	1
		Water Absorption	One Test		1	1
		Specific Gravity	One Test		1	1
		Material finer than 75 micron	One Test		1	1
5	Steel	Bend test	One Test		1	1
		Tensile Test	One Test		1	1
		Yield Test	One Test		1	1
		ReBend test	One Test		1	1
6	Block(400*200*200)	BLOCK DENSITY	One Test		1	1
		WATER ABSORPTION	One Test		1	1
		DIMENSION ANALYSIS	One Test		1	1
		COMPRESSIVE STRENGTH	One Test		1	1
7	Precast (100mm)	Core Compressive Strength	One Test		1	1
		Corrected Cylinder Compressive Strength	One Test		1	1
		Equivalent Cube Compressive Strength	One Test		1	1
II	PCC(M15)	Compressive Strength(7days and 28days)	3 set /16-30 cum	21.05	6	6
II	RCC(M20)	Compressive Strength(7days and 28days)	6 set /100-150 cum	121.36	12	12
III	Cement Concrete Pavemet (M30)	Compressive Strength(7days and 28days)	10 set / 300-350 cum	349.59	20	20

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TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	**CP-2020-12-29-75** **Date: 05-11-20**
Project Name	:	Improvements to Roads and Drains at Mariyamma Block and Surrounding Area in Ward No.11 Kuvempunagara.
Agency	:	Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagara, Bangalore-560010.
Customer's Reference	:	BBMP/EE/BTP/WO/144/2019-20
Date of Receipt	:	02-11-20
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 (Part 1,2 3,4,5, 6,11):1988 IS 4031 Part 1 DETERMINATION OF FINENESS BY DRY SIEVING, Clause 4.4 IS 4031 Part 2, Determination of Fineness by Blaine Air Permeability Method, Clause 5 IS 4031 Part 3, Determination of Soundness, Clause 5,Clause 6 IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 5, Determination of Initial & Final Setting Time, Clause 5 IS 4031 Part 11,DETERMINATION OF DENSITY , Clause 6
Date of test	:	03-11-20
Environmental Conditions during test	:	Temperature: 26°C Humidity: 72%

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	Fineness by dry sieving (%)	1.33	_
2	Finess by Air permeablity method (m^2/kg,Min)	295.6	225m^2/kg, Min
3	Density (gm/cc)	3.15	_
4	Standard Consistency (%)	29.5%	Not specified
5	Initial Setting time	145 minutes	Not less than 30 minutes
6	Final Setting time	255 minutes	Not more than 600 minutes
7	Soundness (Le Chatelier's Method)	1.5mm	Not more than 10 mm

* The results obtained are satisfactory as per standard requirements.

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Quality Manager

Assistant Executive Engineer Vidyaranyapura Sub Division BBMP, Bangalore-97

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TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	CP-2020-12-29-75 **Date: 01-12-20**
Project Name	:	Improvements to Roads and Drains at Mariyamma Block and Surrounding Area in Ward No.11 Kuvempunagara.
Agency	:	Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagara, Bangalore-560010.
Customer's Reference	:	BBMP/EE/BTP/WO/144/2019-20
Date of Receipt	:	02-11-20
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 6, Determination of Compressive Strength, Clause 6
Date of test	:	03-11-20
Environmental Conditions during test	:	Temperature: 26°C Humidity: 72%

Compressive Strength			
Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	3 Days	29.5N/mm^2	Not less than 27 N/mm^2
2	7 Days	39.5N/mm^2	Not less than 37 N/mm^2
3	28 Days	57.5N/mm^2	Not less than 53 N/mm^2

**The results obtained are satisfactory as per standard requirements.

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TEST REPORT ON COARSE AGGREGATES

Lab ID	:	**CP-2020-12-29-75** **Date: 05-11-20**
Project Name	:	Improvements to Roads and Drains at Mariyamma Block and Surrounding Area in Ward No.11 Kuvempunagara.
Agency	:	Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagara, Bangalore-560010.
Customer's Reference	:	BBMP/EE/BTP/WO/144/2019-20
Date of Receipt	:	02-11-20
Sample Type	:	40mm down size coarse aggregate
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2011 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption IS 2386 Part 4: Mechanical Properties
Date of test	:	02-11-20

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 40MM DOWN COARSE AGGREGATE:

Total weight taken : 15000 grams

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	80 mm	0	0	0.0	100	100
2	40 mm	389	389	2.6	97.4	90-100
3	20 mm	6965	7354	49.0	51.0	30-70
4	10 mm	4699	12053	80.4	19.6	10-35
5	4.75 mm	2588	14641	97.6	2.4	0-5
6	Pan	359	15000	100.0	0	---

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TEST REPORT ON COARSE AGGREGATES

Lab ID : CP-2020-12-29-75 Date: 05-11-20

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	13.9	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	11.6	
3	Specific Gravity	2.62	_
4	Bulk Density(Loose) (Kg/l)	1.40	_
5	Bulk Density(Compacted) (Kg/l)	1.45	_
6	Water Absorption(%)	0.28	_

* The results obtained are satisfactory as per standard requirements.

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TEST REPORT ON COARSE AGGREGATES

Lab ID	:	**CP-2020-12-29-75** **Date: 05-11-20**
Project Name	:	Improvements to Roads and Drains at Mariyamma Block and Surrounding Area in Ward No.11 Kuvempunagara.
Agency	:	Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagara, Bangalore-560010.
Customer Reference	:	BBMP/EE/BTP/WO/144/2019-20
Date of Receipt	:	02-11-20
Sample Type/ Size	:	20mm down size coarse aggregate
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2011 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption IS 2386 Part 4: Mechanical Properties
Date of test	:	02-11-20

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 20MM DOWN COARSE AGGREGATE:

Total weight taken : 5000 grams

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	40 mm	0	0	0	100	100
2	20 mm	258	258	5.2	94.8	90-100
3	10 mm	3185	3443	68.9	31.1	25-55
4	4.75 mm	1405	4848	97.0	3.0	0-10
5	Pan	152	5000	100	0	–

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TEST REPORT ON COARSE AGGREGATES

Lab ID : CP-2020-12-29-75 **Date: 05-11-20**

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	**13.4**	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	**11.8**	
3	Specific Gravity	**2.64**	_
4	Bulk Density(Loose) (Kg/l)	**1.42**	_
5	Bulk Density(Compacted) (Kg/l)	**1.47**	_
6	Water Absorption(%)	**0.28**	_
7	Aggregate crushing Value(%)	**23.7**	Max 30% for Aggregates to be used in concrete for wearing Surface, In case Aggregate Crushing Value Exceeds 30% then the test for ten percent fines should be conducted for Aggregates to be used in concrete other than for wearing Surface.
8	Aggregate Impact Value(%)	**25.4**	30% for Aggregates to be used in concrete for wearing Surface, 45% for Aggregates to be used in concrete other than for wearing Surface.

* The results obtained are satisfactory as per standard requirements.

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Format No: CP/TF/01

TEST REPORT OF FINE AGGREGATE

Lab ID : **CP-2020-12-29-75** **Date: 05-11-20**

Project Name : Improvements to Roads and Drains at Mariyamma Block and Surrounding Area in Ward No.11 Kuvempunagara.

Agency : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagara, Bangalore-560010.

Customer's Reference : BBMP/EE/BTP/WO/144/2019-20

Date of Receipt : 02-11-20

Sample Type : Fine Aggregate

Reference to BIS codes : IS 383 : 2016 (Specification for Coarse and fine Aggregates)
IS: 2386 :1963(Part - 1, 3) RA2012
IS 2386 Part 1: Particle Size and Shape
IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption

Date of test : 02-11-20

Total weight taken : 1000 grams

Sl.no	Sieve Size	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383:2016			
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV
1	10 mm	0	0	0.0	100.0	100	100	100	100
2	4.75 mm	18	18	1.8	98.2	90-100	90-100	90-100	95-100
3	2.36 mm	128	146	14.6	85.4	60-95	75-100	85-100	95-100
4	1.18 mm	214	360	36.0	64.0	30-70	55-90	75-100	90-100
5	600 micron	201	561	56.1	43.9	15-34	35-59	60-79	80-100
6	300 micron	248	809	80.9	19.1	5-20	8-30	12-40	15-50
7	150 micron	147	956	95.6	4.4	0-10	0-10	0-10	0-15
8	Pan	44	1000	100.0	0.0	---	---	---	---

Result :The tested Sample Conforms to Grading Zone II

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TEST REPORT OF FINE AGGREGATE

Lab ID : **CP-2020-12-29-75** **Date: 05-11-20**

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS 383:2016
1	Water Absorption(%)	1.26	_
2	Specific Gravity	2.54	_
3	Material finer than 75 micron(%)	3.9	Uncrushed fine Aggregate Max 3%, Crushed Fine aggregate Max 15%, Mixed Fine aggregate Max 12%, Manufactured Fine aggregate Max 10%

**The results obtained are satisfactory as per standard requirements.

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Format No: CP/TF/01

TEST REPORT ON PHYSICAL REQUIREMENTS OF SOLID CONCRETE BLOCKS

Lab ID	:	CP-2020-12-29-75 **Date: 24-11-20**
Project Name	:	Improvements to Roads and Drains at Mariyamma Block and Surrounding Area in Ward No.11 Kuvempunagara.
Agency	:	Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagara, Bangalore-560010.
Customer's Reference	:	BBMP/EE/BTP/WO/144/2019-20
Date of Receipt	:	21-11-20
Sample Type/Size	:	Solid concrete blocks size (400X200X200)mm
Reference to BIS codes	:	IS : 2185 (Part 1) : 2005(RA 2010) Concrete Masonry Specification Part 1:Hollow and Solid Concrete Blocks (Dimensions -Annex-B, Clause 9.2 and 10 , Block density Annex -C Clause 9.3 and10, Compressive strength Annex -D Clause 9.4 and 10, Water absorption Annex -E Clause 9.5 and 10)
Date of test	:	21-11-20

BLOCK DENSITY:

Sl. No.	Measurement of overall Dimensions of Individual Blocks			Overall Volume of the Block in Cubic Centimetres	Weight of Oven Dried Block in Kilograms to the nearest 10 Gram	Block Density in Kg/cum*10^6	Avg.Block Density in (Kg/cum)	As per IS 2185(Part 1) :2005 (RA 2010)
	Length	Breadth	Height					
	mm	mm	mm	(Cm^3)	Kg	Kg/m^3	Kg/m^3	
1	398	202	200	16079	33.822	2103.5	2048.8	Not less than 1800Kg/m^3
2	404	199	200	16079	32.866	2044.0		
3	403	203	200	16362	32.706	1998.9		

WATER ABSORPTION:

Sl. No.	Wet weight after water absorption	Dry weight (Oven dry)	Water Absorption	Avg.Water Absorption	As per IS 2185(Part 1):2005 (RA 2010)
	kg	kg	%	%	
1	33.91	32.25	4.89	4.25	Shall not be more than 10% by mass
2	33.57	32.14	4.28		
3	33.44	32.24	3.59		

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Lab ID : CP-2020-12-29-75 Date: 24-11-20

DIMENSION ANALYSIS

Sl.no	Length mm	Breadth mm	Height mm	Requirement as per IS 2185(Part 1):2005
1	403	202	203	Length : ± 5mm Breadth : ± 3mm Height : ± 3mm
2	404	202	201	
3	402	201	203	
4	399	203	200	
5	402	199	201	
6	400	201	202	
7	400	202	202	
8	400	200	199	
9	401	202	199	
10	404	200	202	
11	400	202	199	
12	403	200	202	
13	400	202	201	
14	402	200	202	
15	403	201	200	
16	402	201	200	
17	403	202	203	
18	402	201	203	
19	404	200	202	
20	402	200	202	
Average	**402**	**201**	**201**	

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Lab ID : **CP-2020-12-29-75** **Date: 24-11-20**

COMPRESSIVE STRENGTH:

Sl. No.	Size of solid block		Area	Failure Load	Compressive strength	Average Compressive strength
	Length	Breadth				
	mm	mm	(mm^2)	(KN)	N/mm^2	(N/mm^2)
1	400	202	80836	355.8	4.4	4.6
2	404	202	81697	374.4	4.6	
3	402	201	80872	383.7	4.7	
4	399	203	80940	390.4	4.8	
5	402	199	80066	372.3	4.6	
6	400	201	80398	354.3	4.4	
7	400	202	80776	383.4	4.7	
8	400	200	80129	386.8	4.8	

As per IS Requirements (Table 2, Clause 5.1, 5.2 and 9.4)

Compressive strength		
Grade	Minimum average	Minimum Individual units.
C (5.0)	5.00 N/mm^2	4.00 N/mm^2
C (4.0)	4.00 N/mm^2	3.20 N/mm^2

*The results obtained are satisfactory as per standard requirements.

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TEST RESULTS OF STEEL

Lab ID : **CP-2020-12-29-75** **Date: 03-11-20**

Project Name : Improvements to Roads and Drains at Mariyamma Block and Surrounding Area in Ward No.11 Kuvempunagara.

Agency : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagara, Bangalore-560010.

Customer's Reference : BBMP/EE/BTP/WO/144/2019-20

Date of Receipt : 02-11-20

Sample Type : Sunvik

Reference to BIS codes : IS 1786-2008, IS:1608-2005(RA 2011), IS 1599-2012.

Date of test: : 02-11-20

Sl.No	Identification of sample	Grade of the sample	Diameter of the steel bar	Weight of the sample	Yield stress	Tensile strength	Elongation	Bend test	Rebend test
			(mm)	(kg/m)	(N/mm2)	(N/mm2)	(%)		
1	Sunvik	Fe500	8	0.391	512	652	20.0%	Satisfactory	Satisfactory
2	Sunvik	Fe500	10	0.616	528	672	20.0%	Satisfactory	Satisfactory
3	Sunvik	Fe500	12	0.888	544	668	20.0%	Satisfactory	Satisfactory

*The results obtained are satisfactory as per standard requirements.

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TEST REPORT OF PRECAST COVER SLAB

ID	:	**CP-2020-12-29-75** **Date: 23-11-20**
ject Name	:	Improvements to Roads and Drains at Mariyamma Block and Surrounding Area in Ward No.11 Kuvempunagara.
ncy	:	Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagara, Bangalore-560010.
mer's Reference	:	BBMP/EE/BTP/WO/144/2019-20
of Receipt	:	19-11-20
ple Type /Size	:	Precast Cover Slab (100mm)
rence to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete
of Test	:	19/11/2020

Identification Mark	Diameter of the core	Height of the core	Weight of the core	Area	Failure Load	Core Compressive strength	Corrected Cylinder Compressive strength	Equivalent Cube Compressive strength
	(mm)	(mm)	(kg)	(Sq.mm)	(KN)	(N/mm^2)	(N/mm^2)	(N/mm^2)
Cover Slab-1	75.51	100.48	1.116	4477	80.9	18.1	16.8	21.0
Cover Slab-2	75.49	100.52	1.122	4475	82.3	18.4	17.1	21.4
Cover Slab-3	75.50	100.51	1.118	4476	81.5	18.2	16.9	21.2

ults obtained are satisfactory as per standard requirements.

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TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2020-12-29-75** **Date: 02/12/2020**

Project Name : Improvements to Roads and Drains at Mariyamma Block and Surrounding Area in Ward No.11 Kuvempunagara.

Agency : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagara, Bangalore-560010.

Customer's Reference : BBMP/EE/BTP/WO/144/2019-20

Date of Receipt : 27-11-20

Customer ID : PCC

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M15 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 02/12/2020

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
	PCC	M15	25/11/2020	02/12/2020	150.72 X 150.90 X 150.37	22743	**8.596**	289.0	12.7	12.6
	PCC	M15	25/11/2020	02/12/2020	149.96 X 149.58 X 150.05	22432	**8.051**	275.8	12.3	
	PCC	M15	25/11/2020	02/12/2020	149.30 X 149.33 X 150.16	22295	**8.788**	283.2	12.7	

Results obtained are satisfactory as per standard requirements.

Assistant Executive Engineer
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TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2020-12-29-75** **Date: 23/12/2020**

Project Name : Improvements to Roads and Drains at Mariyamma Block and Surrounding Area in Ward No.11 Kuvempunagara.

Agency : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagara, Bangalore-560010.

Customer's Reference : BBMP/EE/BTP/WO/144/2019-20

Date of Receipt : 27-11-20

Customer ID : PCC

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M15 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 23/12/2020

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	PCC	M15	25/11/2020	23/12/2020	149.39 X 150.75 X 149.82	22520	8.896	383.3	17.0	17.3
2	PCC	M15	25/11/2020	23/12/2020	151.04 X 149.30 X 150.13	22550	8.089	392.5	17.4	
3	PCC	M15	25/11/2020	23/12/2020	149.23 X 149.38 X 150.80	22291	8.125	392.7	17.6	

The results obtained are satisfactory as per standard requirements.

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore-97

CIVIL Pro ★ Sig..... Date..... ★ BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2020-12-29-75** **Date: 02/12/2020**

Project Name : Improvements to Roads and Drains at Mariyamma Block and Surrounding Area in Ward No.11 Kuvempunagara.

Agency : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagara, Bangalore-560010.

Customer's Reference : BBMP/EE/BTP/WO/144/2019-20

Date of Receipt : 27-11-20

Customer ID : PCC

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M15 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 02/12/2020

Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
PCC	M15	25/11/2020	02/12/2020	149.79 X 149.45 X 149.57	22386	8.596	273.9	12.2	12.5
PCC	M15	25/11/2020	02/12/2020	151.19 X 150.53 X 151.95	22759	8.051	282.1	12.4	
PCC	M15	25/11/2020	02/12/2020	149.94 X 151.49 X 149.47	22714	8.788	291.5	12.8	

Results obtained are satisfactory as per standard requirements.

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

CIVIL PRO BANGALORE Sig. Date

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

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Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2020-12-29-75** **Date: 23/12/2020**

Project Name : Improvements to Roads and Drains at Mariyamma Block and Surrounding Area in Ward No.11 Kuvempunagara.

Agency : Executive Engineer, Karnataka Rural Infrastructure Development Ltd, #280, 59th Cross Road, 17th 'C' Main Road, 3rd 'Y' Block, Rajajinagara, Bangalore-560010.

Customer's Reference : BBMP/EE/BTP/WO/144/2019-20

Date of Receipt : 27-11-20

Customer ID : PCC

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M15 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 23/12/2020

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	PCC	M15	25/11/2020	23/12/2020	149.78 X 151.62 X 149.17	22709	**8.896**	404.4	17.8	17.8
2	PCC	M15	25/11/2020	23/12/2020	150.47 X 150.80 X 149.07	22691	**8.089**	405.9	17.9	
3	PCC	M15	25/11/2020	23/12/2020	150.25 X 150.58 X 151.39	22626	**8.125**	403.8	17.8	

The results obtained are satisfactory as per standard requirements.

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

CIVIL Pro Sig. Date. BANGALORE

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****